ELSEVIER

Volume 529 issues 1–2, 24 January 2005

ANALYTICA CHIMICA ACTA

www.elsevier.com/locate/aca

CONTENTS

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

Special Issue
EURORESIDUE V, Noordwijkerhout, The Netherlands, 10–12 May 2004

Foreword
R.W. Stephany (Bilthoven, Netherlands) 1

Impact of new legislation on the registration of veterinary drugs
R. Clayton (Brussels, Belgium) 3

Trends in animal feed composition and the possible consequences on residue tests
G. Brambilla and S.D. Filippis (Rome, Italy) 7

Sulfonamides residues analysis: evaluation of results dispersion at maximum residual limit by the expanded uncertainty and 2002/657/EC decision limit approaches
I. Pecorelli, R. Bibi, L. Fioroni, A. Piersanti and R. Galarini (Perugia, Italy) 15

Screening procedures

Rapid screening method for halofuginone residues in poultry eggs and liver using time-resolved fluorometry combined with the all-in-one dry chemistry assay concept
V. Hagren (Turku, Finland), L. Connolly, C.T. Elliott (Belfast, UK), T. Lövgren and M. Tuomola (Turku, Finland) 21

Rapid screening of narasin residues in poultry plasma by time-resolved fluoroimmunoassay
P. Peippo, T. Lövgren and M. Tuomola (Turku, Finland) 27

Potential application of gene expression fingerprinting for food safety screening
T. Buterin, C. Koch and H. Naegeli (Zürich, Switzerland) 33

Recombinant bovine somatotropin misuse in cattle. Evaluation of Western blotting and 2D electrophoresis methods on biological samples for the demonstration of its administration
G. Pinel, R. Buon, F. Aviat, C. Larré, G. André-Fontaine, F. André and B. Le Bizec (Nantes, France) 41

Simple and rapid screening and confirmation of tetracyclines in honey and egg by a dipstick test and LC–MS/MS
G. Alfredsson, C. Branzell, K. Granelli and Å. Lundström (Uppsala, Sweden) 47

Pharmacological characterization of new β-agonists using Huβ_1- and Huβ_2-adrenergic receptor binding assay in transfected HEK-293 cells
C. Civitareale, C. Ambrosio, M. Sbraccia, M. Fiori, G. Brambilla (Roma, Italy) and C. Testa (Sassari, Italy) 53

Validation of a rapid yeast estrogen bioassay, based on the expression of green fluorescent protein, for the screening of estrogenic activity in calf urine
T.F.H. Bovee, H.H. Heskamp, A.R.M. Hamers, R.L.A.P. Hoogenboom and M.W.F. Nielen (Wageningen, The Netherlands) 57

Confirmation of the identity of residues using quadrupole time-of-flight mass spectrometry
J.F.V. Bocxlaer, S.R.V. Casteele, C.J.V. Poucke and C.H.V. Peteghem (Ghent, Belgium) 65

The analysis of beta-agonists in bovine muscle using molecular imprinted polymers with ion trap LCMS screening
P.R. Kootstra, C.J.P.F. Kuijpers, K.L. Wubs, D. van Doorn, S.S. Sterk, L.A. van Ginkel and R.W. Stephany (Bilthoven, The Netherlands) 75

A new approach for detection of antimicrobial drugs in food. Premi® Test coupled to scanner technology
S. Stead, S. Richmond, M. Sharman (Yorkshire, UK), J. Stark and E. Geijp (Delft, The Netherlands) 83

Simultaneous and rapid detection of five banned antibiotic growth promoters by immunoassay
C. Situ and C.T. Elliott (Belfast, UK) 89

Detection of colistin in spiked and incurred milk samples by LC- and ELISA-technique
G. Suhren and K. Knappstein (Kiel, Germany) 97

Development and validation of screening and confirmatory methods for the detection of chloramphenicol and chloramphenicol glucuronide using SPR biosensor and liquid chromatography–tandem mass spectrometry
H.M. Ashwin, S.L. Stead, J.C. Taylor, J.R. Startin, S.F. Richmond, V. Homer, T. Bigwood and M. Sharman (York, UK) 103

Detection of chloramphenicol and chloramphenicol glucuronide residues in poultry muscle, honey, prawn and milk using a surface plasmon resonance biosensor and Qflex® kit chloramphenicol
J. Ferguson, A. Baxter, P. Young, G. Kennedy, C. Elliott (Belfast, Northern Ireland), S. Weigel, R. Gatermann (Hamburg, Germany), H. Ashwin, S. Stead and M. Sharman (York, UK) 109

Comparison of multi-sulfonamide biosensor immunoassays
M. Bienenmann-Ploum (Wageningen, The Netherlands), T. Korpimäki (Turku, Finland), W. Haasnoot (Wageningen, The Netherlands) and F. Kohen (Rehovot, Israel) 115

doi:10.1016/S0003-2670(05)00055-3

Multi sulfonamide screening in porcine muscle using a surface plasmon resonance biosensor
T. McGrath, A. Baxter, J. Ferguson, S. Haughey (Belfast, UK) and P. Bjurling (Uppsala, Sweden) 123

Methods based on liquid chromatography – mass spectrometry

The ion suppression phenomenon in liquid chromatography–mass spectrometry and its consequences in the field of residue analysis
J.-P. Antignac (Nantes, France), K. de Wasch (Merelbeke, Belgium), F. Monteau (Nantes, France), H. De Brabander (Merelbeke, Belgium), F. Andre and B. Le Bizec (Nantes, France) 129

A versatile liquid chromatography–tandem mass spectrometry system for the analysis of different groups of veterinary drugs
P. Muñoz, J. Blanca, M. Ramos, M. Bartolomé, E. García, N. Méndez, J. Gomez and M. Martín de Pozuelo (Madrid, Spain) 137

Determination of tetracycline residues in shrimp and whole milk using liquid chromatography with ultraviolet detection and residue confirmation by mass spectrometry
W.C. Andersen, J.E. Roybal, S.A. Gonzales, S.B. Turnipseed, A.P. Pfenning and L.R. Kuck (Denver, CO, USA) 145

An analytical method to determine conjugated residues of ceftiofur in milk using liquid chromatography with tandem mass spectrometry
S. Makeswaran, I. Patterson and J. Points (Middlesex, UK) 151

Analysis of avermectin and moxidectin residues in milk by liquid chromatography–tandem mass spectrometry using an atmospheric pressure chemical ionization/atmospheric pressure photoionization source
S.B. Turnipseed, J.E. Roybal, W.C. Andersen and L.R. Kuck (Denver, CO, USA) 159

Liquid chromatography–electrospray ionisation-mass spectrometry based method for the determination of estradiol benzoate in hair of cattle
H. Hooijerink, A. Lommen, P.P.J. Mulder, J.A. van Rhijn and M.W.F. Nielen (Wageningen, The Netherlands) 167

Determination of residues of malachite green in finfish by liquid chromatography tandem mass spectrometry
P. Scherpenisse and A.A. Bergwerff (Utrecht, The Netherlands) 173

Quantitative determination of salicylic acid and metabolites in animal tissues by liquid chromatography–tandem mass spectrometry
S. Croubels, A. Maes, K. Baert and P. De Backer (Merelbeke, Belgium) 179

Detection of zilpaterol (Zilmax®) in calf urine and faeces with liquid chromatography–tandem mass spectrometry
N.V. Hoof (Merelbeke, Belgium), R. Schilt, E. van der Vlis, P. Boshuis, M.V. Baak, A. Draaijer (Zeist, The Netherlands), K.D. Wasch (Merelbeke, Belgium), M.V. de Wiele (Gentbrugge, Belgium), J.V. Hende (Merelbeke, Belgium), D. Courtheyn (Gentbrugge, Belgium) and H.D. Brabander (Merelbeke, Belgium) 189

Determination of clenbuterol, ractopamine and zilpaterol in liver and urine by liquid chromatography tandem mass spectrometry
J. Blanca, P. Muñoz, M. Morgado, N. Méndez, A. Aranda, T. Reuvers and H. Hooghuis (Majadahonda (Madrid), Spain) 199

Evaluation of two different clean-up steps, to minimise ion suppression phenomena in ion trap liquid chromatography–tandem mass spectrometry for the multi-residue analysis of beta agonists in calves urine
M. Fiori, C. Civitareale, S. Mirante, E. Magarò and G. Brambilla (Rome, Italy) 207

Detection of banned antibacterial growth promoters in animal feed by liquid chromatography–tandem mass spectrometry: optimisation of the extraction solvent by experimental design
C. Van Poucke, F. Dumoulin and C. Van Peteghem (Ghent, Belgium) 211

Quantitative liquid chromatographic–mass spectrometric analysis of amoxycillin in broiler edible tissues
S. De Baere, P. Wassink, S. Croubels, S.D. Boever, K. Baert and P.D. Backer (Merelbeke, Belgium) 221

Determination of the coccidiostat diclazuril in poultry feed and meat by liquid chromatography–tandem mass spectrometry
L. Mortier, E. Daeseleire (Melle, Belgium) and C.V. Peteghem (Gent, Belgium) 229

Determination of phenylbutazone and oxyphenbutazone in animal urine by ion trap liquid chromatography–mass spectrometry
C. Igualada and F. Moragues (Valencia, Spain) 235

Boldenone and related hormones quantification by liquid chromatography–mass spectrometry in urine and faeces after calf administration of boldenone undecanoate
E. Sangiorgi, V. Polignano and S. Gardini (Brescia, Italy) 239

Determination of chloramphenicol residues in rainbow trouts by gas chromatography–mass spectometry and liquid chromatography–tandem mass spectometry
L. Santos, J. Barbosa, M.C. Castilho, F. Ramos, C.A.F. Ribeiro and M.I.N. de Silveira (Coimbra, Portugal) 249

Determination of chloramphenicol in honey by liquid chromatography–tandem mass spectrometry
A.F. Forti, G. Campana, A. Simonella, M. Multari and G. Scortichini (Teramo, Italy) 257

Validation of a liquid chromatography–tandem mass spectrometric method for the quantification of eight quinolones in bovine muscle, milk and aquacultured products
N.V. Hoof, K.D. Wasch, L. Okerman (Merelbeke, Belgium), W. Reybroeck (Melle, Belgium), S. Poelmans, H. Noppe and H.D. Brabander (Merelbeke, Belgium) 265

Other methods

Results of a European proficiency test for the detection of streptomycin/dihydrostreptomycin, gentamicin and neomycin in milk by ELISA and biosensor methods
V. Gaudin, N. Cadieu and P. Sanders (Fougères, France) 273

Multi-residue method for the determination of benzimidazoles in bovine liver
G. Dowling, H. Cantwell, M. O'Keeffe and M.R. Smyth (Dublin, Ireland) 285

Stability of β-agonist methyl boronic derivatives before gas chromatography–mass spectrometry analysis
M. Reig, N. Batlle, J.L. Navarro and F. Toldrá (Burjassot (Valencia), Spain) 293

Sampling and sample treatment

Nitroimidazoles in turkey muscle—the influence of sampling conditions on measurement results in residue control
J. Polzer and P. Gowik (Berlin, Germany) 299

Effect of various heat treatments and cold storage on sulphamethazine residues stability in incurred piglet muscle and cow milk samples
E.P. Papapanagiotou, D.J. Fletouris and E.I. Psomas (Thessaloniki, Greece) 305

Metabolic and distribution studies

The study of some new anabolic drugs by metabolism experiments with *Neomysis integer*
S. Poelmans, K.D. Wasch (Merelbeke, Belgium), D. Courtheyn (Gentbrugge, Belgium), N.V. Hoof, H. Noppe (Merelbeke, Belgium), C. Janssen (Gent, Belgium) and H.F. De Brabander (Merelbeke, Belgium) 311

Metabolism of methyltestosterone, norethandrolone and methylboldenone in a heifer
M.H. Blokland, H.J. van Rossum, H.A. Herbold, S.S. Sterk, R.W. Stephany and L.A. van Ginkel (Bilthoven, The Netherlands) 317

Sulphamethazine residue depletion study in piglets after oral administration
E.P. Papapanagiotou, D.J. Fletouris and I.E. Psomas (Thessaloniki, Greece) 325

Deposition and depletion of the coccidiostats toltrazuril and halofuginone in eggs
P.P.J. Mulder, P. Balzer-Rutgers, E.M. te Brinke, Y.J.C. Bolck, B.J.A. Berendsen, H. Gerçek, B. Schat and J.A. van Rhijn (Wageningen, The Netherlands) 331

Metabolism and depletion of nifursol in broilers
T. Zuidema, P.P.J. Mulder, J.A. van Rhijn, N.G.M. Keestra, L.A.P. Hoogenboom, B. Schat (Wageningen, The Netherlands) and D.G. Kennedy (Northern Ireland, UK) 339

Distribution of chloramphenicol residues in lactating cows following an external application
A. Pengov, V.C. Flajs, T. Zadnik, J. Marinšek and M. Pogačnik (Ljubljana, Slovenia) 347

Pharmacokinetics of doramectin in lactating dairy sheep and suckling lambs
V. Cerkvenik Flajs, I. Grabnar, N.K. Eržen, I. Marc, U. Požgan, M. Gombač, L. Kolar and M. Pogačnik (Ljubljana, Slovenia) 353

Quantitative determination of dexamethasone in bovine plasma and tissues by liquid chromatography–atmospheric pressure chemical ionization–tandem mass spectrometry to monitor residue depletion kinetics
M. Cherlet, S.D. Baere, S. Croubels and P.D. Backer (Merelbeke, Belgium) 361

Author Index 371

Calendar of forthcoming meetings N1

CONTENTS direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: **http://contentsdirect.elsevier.com**

SCIENCE DIRECT®

Full text of this journal is available, on-line from **ScienceDirect**. Visit **www.sciencedirect.com** for more information.

CONTENTS